

Driving Apparatus for Speed Changing and Steering of a Vehicle

Abstract

5 A driving apparatus (2) for speed changing and steering of a vehicle consists of a first driving unit (21) for speed changing in advancing and reversing and a second driving unit (22) for steering, which are arranged in a longitudinal row and are attached to a vehicle chassis (12). Each of the first driving unit (21) and the second driving unit (22) has a common structure, which comprises a housing and an HST and left and right differential output shafts contained in the housing. A left first differential output shaft (40L) and a left second differential output shaft (44L) are connected with each other so as to be rotated in the same direction, and a right first differential output shaft (40R) and a right second differential output shaft (44R) are connected with each other so as to be rotated in opposite directions. Both first and second HSTs of the first driving unit (21) and a second driving unit (22) receives power from engine (11) through a common single belt (30). A movable swash plate (57) of a hydraulic pump (51) of the first HST is connected to a speed change pedal (15) and a movable swash plate (76) of a hydraulic pump (71) of the second HST is connected to a steering wheel (14).